

WHAT IS CLAIMED IS:

1. An aqueous nanoparticle ceramic agglomerate dispersion, for forming an ink-absorbing layer of an ink-jet recording medium, comprising:

5 - a nanoparticle ceramic agglomerate dispersed in deionized water;

- said nanoparticle ceramic agglomerate having an average diameter of 0.05 to 0.3  $\mu\text{m}$  at a viscosity suitable for coating of 10 to 200 mPa·s as measured by a laser diffraction particle size distribution measurement apparatus, and

10 - said nanoparticle ceramic agglomerate having a size distribution curve such that the ratio of peak width at a height which is half the maximum height of said curve, determined according to the results of said measurement, to the maximum height is 0.7 or less.

15 2. The aqueous nanoparticle ceramic agglomerate dispersion having a size distribution curve corresponding to Figure 1.

20 3. An ink-jet recording medium having an ink-absorbing layer deposited on a surface thereof produced from the aqueous nanoparticle ceramic agglomerate dispersion of claim 1.

4. The ink-jet recording medium having an ink-absorbing layer deposited on a surface thereof produced from the aqueous nanoparticle ceramic agglomerate dispersion of claim 2.

25 5. The ink-jet recording medium according to claim 3 wherein said dispersion further contains a cationic polymer.

6. The ink-jet recording medium according to claim 3 wherein said surface is a water absorbing paper recording surface.

7. A method of making an ink jet recording medium comprising applying to a recording surface a coating of the aqueous nanoparticle ceramic agglomerate dispersion of claim 1, cooling the coating, and drying the coating to produce said recording medium.

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8. The method according to claim 7 wherein said recording surface is a water absorbing paper.

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9. The method according to claim 7 wherein said dispersion also contains a cationic polymer.